Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

F6715

PLANT IMMIGRANTS

REC'D LIBRARY SEP 29 1916 BUREAU OF PLANT INDUSTRY

Descriptive notes furnished mainly by Agricultural Explorers and Foreign Correspondents relative to the more important introduced plants which have recently arrived at the Office of Foreign Seed and Plant Introduction of the Bureau of Plant Industry of the Department of Agriculture, together with accounts of the behavior in America of previous introductions. Descriptions appearing here are revised and published later in the Inventory of Plants Imported.

No. 118. FEBRUARY 1916.

Genera Represented in this Number.

	Page		Page
Aesculus	962	Juglans	966
Andropogon	962	Linum	966
Apluda	963	Passiflora	966
Cariniana	963	Pinus	967
Cenchrus	963	Piratinera	967
Chionachne	963	Prunus	967
Chloris	963	Sesban	968
Chrysopogon	964	Solanum	968
Crataegus	964	Styrax	969
Eragrostis	964	Thelepogon	969
Escallonia	965	Tricholaena	969
Indigofera	965	Virola	970
Iseilema	965	Vitis	970

Plates:

The Tangsi cherry, Prunus pseudocerasus.
Plant of Garbanzo, Cicer arietinum.
Chinese wet-land ginger, Zinziber officinale.
A grove of the Tamopan Persimmon, Diospyros kaki.

Applications for material listed in these multigraphed sheets may be made at any time to this Office. As they are received they are placed on file, and when the material is ready for the use of experimenters it is sent to those on the list of applicants who can show that they are prepared to care for it as well as to others selected because of their special fitness to experiment with the particular plants imported. Do not wait for the annual List of New Plant Introductions.

One of the main objects of the Office of Foreign Seed and Plant Introduction is to secure material for plant experimenters, and it will undertake as far as possible to fill any specific requests for foreign seeds or plants from plant breeders and others interested.

Permission to publish on application only.

Aesculus plantierensis Andre. (Aesculaceae.) 41961. Cuttings of a hybrid horse-chestnut from Kew, England. Presented by Sir David Prain, Director, Royal Botanic Gardens. "A hybrid raised in the nursery of Messrs. Simon-Louis Fréres, at Plantières, near Metz; its parents no doubt *A. hippocastanum* and *A. carnea*. The seed came from the former, so that it is (if the generally accepted parentage of *A. carnea* be correct) three-fourths common horse-chestnut and one part the red buckeye (*A. pavia*). It shows the character of both its parents in the leaf; the leaflets being stalkless, as in *A. hippocastanum*, yet showing the strongly ridged and uneven surface of *A. carnea*. In shape and size the panicle is like that of *A. hippocastanum*, but the whole flower is suffused with a charming shade of soft pink, which it inherits from the other parent. In habit and general appearance it is intermediate. It has flowered at Kew for several years past, and I consider it a very beautiful and desirable acquisition. It has developed no fruit at Kew, and I understand from Mr. Jouin, of Plantières, that it does not bear seed in the nursery. For public places this is an advantage." (W. J. Bean, Trees and Shrubs Hardy in the British Isles, Vol. 1, p. 173.)

Andropogon spp. (Poaceae.) 41885-41891. Grass seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. 41885. *A. annulatus* Forsk. "An abundant, native perennial grass in India, much used for fodder, both the yield and quality being good. It belongs to a group of species which are closely interrelated, but all furnish fairly good forage. The species are well adapted to Gulf Coast conditions and are at present the subject of careful investigation as the best of them will probably be worthy of cultivation. *A. annulatus* is a wide-spread species over Africa and southern Asia. The vernacular name commonly used in Punjab is *palwan*. Closely related species are *A. pertusus* (the sour-grass of Barbados), *A. caricosus*, and *A. bifoveolatus*." (C.V.Piper.) 41886. *A. caricosus* L. "A species much like the preceding and of similar value. Introduced in Antigua where it is valued as a hay grass." (Piper.) 41888. *A. lawsoni* Hook. f. "A perennial species with creeping rootstocks, native to Mysore, India." (Piper.) 41889. *A. odoratus* Lisboa. "A species with odorous herbage and stems 3 to 4 feet high, thick as a goose quill. Native to Deccan, India." (Piper.) 41890. *A. pumilus* Roxb. "A slender species with stems 6 to 18 inches high; native in the drier parts of India." (Piper.) 41891. *A. purpureosericeus* Hochst. "An annual species with stems 3 to 4 feet high. Native to Abyssinia and India." (Piper.)

Apluda aristata Torner. (Poaceae.) 41892. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "A perennial leafy grass, the tall stiff stems branched above. Readily eaten by cattle when young according to Duthie, but becoming rather woody." (C. V. Piper.)

Cariniana legalis (Mart.) Kuntze. (Lecythidaceae.) 41933. Seeds of Jequitiba from Brazil. Collected by Mr. H. M. Curran. "One of the largest of Bahian timber trees. Ornamental. Wood hard, light brown, and well known in markets." (Curran.)

Cenchrus biflorus Roxb. (Poaceae.) 41894. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "A perennial grass native in southern Asia and Africa. It is abundant in northern India, where it is considered one of the most nutritious grasses and excellent both for grazing and for hay. In Florida and along the Gulf Coast it succeeds well and tends to spread naturally but the growth is sufficient only for grazing as on sandy soil the grass grows only 6 to 12 inches high." (Piper.)

Chionachne barbata (Roxb.) R. Brown. (Poaceae.) 41895. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "A tall, coarse, branching grass native to the hot and damp parts of India. When mature the grass is very coarse, but when young is said to be used as fodder." (C. V. Piper.)

Chloris spp. (Poaceae.) 41896-41898. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. *Chloris gayana* Kunth. 41896. "A perennial grass, native to South Africa, first cultivated by Cecil Rhodes in South Africa about 1895. The grass is fine stemmed, very leafy, and grows to an average height of about 3 feet. The flowering head consists of 10 to 15 long, spreading spikes in a cluster, and seed is produced in abundance. The grass also spreads by means of running branches 2 to 6 feet long, which root and produce a plant at every node. Notwithstanding this method of reproduction, Rhodes grass has at no place in the United States become troublesome as a weed. Rhodes grass is completely destroyed when the temperature in winter falls to about 18°F., and as a perennial grass is therefore adapted only to southern Texas, Florida, and a narrow strip along the Gulf coast. Farther north it must be treated as an annual. At Washington, D. C., it will produce but a single crop of hay in a season. Farther south two cuttings may be obtained under favorable conditions. On fertile land in central and southern Florida, however, as many as six to seven cuttings are secured in a single season. A good stand of Rhodes grass will yield from a ton and a quarter to a ton and a

half of hay to a cutting. This hay is of very fine quality and is eagerly eaten by horses and cows. In Florida it is already being grown on a commercial scale." (C. V. Piper.) 41897. *Chloris paraguiensis* Steud. "A perennial grass native to India, Burma, and Ceylon, but now widespread in the tropics. According to Duthie it is considered in northern India 'a good fodder grass up to the time of flowering, after which time cattle will not touch it'. In Australia it is considered one of the best grasses for pasturage and hay. Previous tests in this country (No. 36255) did not indicate that it is of much value." (Piper.) 41898. *Chloris virgata* Swartz. "An annual grass forming stools 2 to 3 feet high. Originally described from the West Indies, but apparently the same species occurs in the tropics of the Old World. It has been tested at many places in the United States, but nowhere has it given sufficient promise to warrant cultivation." (Piper.)

Chrysopogon montanus Trin. (Poaceae.) 41899. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "This perennial grass is a handsome species growing to a height of 3 to 5 feet. In India it has an excellent reputation for fodder and according to Duthie the seeds are collected and used for food by the natives. This grass has succeeded well in Florida and at Biloxi, Miss., and in this region possesses some promise as a pasture grass." (C. V. Piper.)

Crataegus pinnatifida Bunge. (Malaceae.) 41952-41953. Hawthorn seeds from near Peking, China. Collected by Mr. D. F. Higgins. 41952. "*Sia-la-hung*. The large Chinese thorn-apple which is grafted on seedlings of the smaller variety. These seeds are not fertile." 41953. "*Sia-la-hung*. Chinese thorn-apple. These are the seeds of the wild indigenous variety. It is also cultivated for its fruit and for the stock on which the large variety is grafted. These seeds are fertile." (Higgins.)

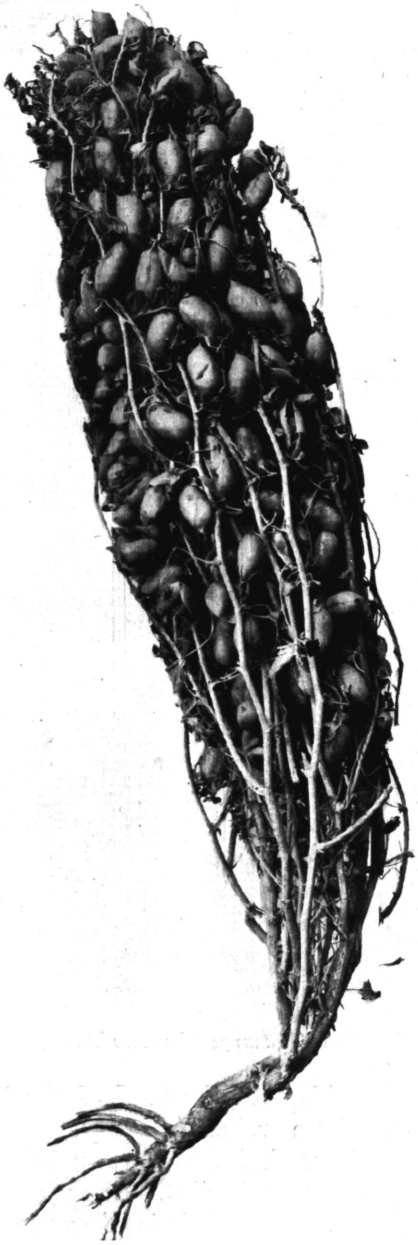
Crataegus pinnatifida Bunge. (Malaceae.) 42017. Seeds of a hawthorn from Tamingfu, Chih-li, North China. Presented by Rev. Horace W. Houlding. "Named in Chinese *Shan Li Hung* or Mountain red pear. My wife says to her it stands next to the apple for home use in cooking. It is good for jelly and marmalade and when dipped whole into melted rock-sugar it makes the finest confection and one of the most healthful that I know of. There is a use for this fruit in America." (Houlding.)

Eragrostis abyssinica (Jacq.) Schrad. (Poaceae.) 41903. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "Teff, cultivated as a good grain in Abyssinia, has in recent years proven very valuable for

THE TANGSI CHERRY (*Prunus pseudocerasus* Lindl.), S. P. I. No. 18587.

This Chinese cherry, introduced by Mr. Frank N. Meyer from Tangsi, a small town in the Chekiang Province of China where orchards of it are grown, ripens its fruit a week to 10 days earlier than the commercial varieties now grown in northern California. In 1914 ripe fruit was picked from March 30 to April 3. Though a thin-skinned, medium-sized cherry, not larger than the Early Richmond, it is of excellent flavor and because of its extreme earliness will probably become a profitable commercial sort. The fact has recently been pointed out that this is doubtless the true *Prunus pseudocerasus* of Lindley, a name erroneously applied to the Japanese flowering cherry (*Prunus serrulata* Lindl.). The vigor of this Tangsi cherry has attracted the attention of the growers and suggests its use as a stock for other varieties. Natural size photograph (Chico 467), by Mr. R. L. Beagles, taken April 3, 1914, at Test Orchard, Chico, Cal.

Pl. 184.



PLANT OF GARBANZO (*Cicer arietinum*) GROWN AT SPOKANE, WASH., S. P. I. No. 26898.

Experiments with the garbanzo or chick-pea, which is ranked next to the wheat plant in importance by many Spanish farmers, have been made in various parts of the United States. In parts of California garbanzos have been successful, but their culture as far north as Spokane has not heretofore been reported. This plant was grown by Otto Hubenthal, proprietor of the Spokane Nursery, from seed of a Mexican type secured from a commercial house in New York. Altogether too little attention has been paid by Americans to the good qualities of this nutritious legume, which is deserving of a thorough investigation, particularly as a garden vegetable. Its pods contain each a single seed and these, either fresh, dried, parched, or ground into flour, are palatable and nutritious. Although the plants grow and bear sparingly in the moister regions of the United States, they are especially adapted to cultivation in the dry, hot regions, where they fruit abundantly. Photograph (P15661FS) made at the Office of Foreign Seed and Plant Introduction, March 8, 1915.

hay production in South Africa. In view of these results it is at present being tested again in various parts of the United States. Numerous previous trials have indicated that teff can not compete with heavier yielding annuals such as millet and Sudan grass as a hay crop, but in some parts of the United States it may yet prove to be valuable." (C.V. Piper.)

Escallonia langleyensis Veitch. (Escalloniaceae.) 41962. Cuttings from Kew, England. Presented by Sir David Prain, Director, Royal Botanic Gardens. "An elegant, evergreen, or in hard winters, semi-evergreen shrub, becoming eventually 8 feet or more high, and producing long, slender, arching shoots in one season. Flowers of a charmingly bright rosy carmine, ½ inch across, produced during June and July (a few later) in short racemes of about half a dozen blossoms terminating short leafy twigs; calyx and flower-stalk slightly glandular. This very attractive shrub was raised in Messrs. Veitch's nursery at Langley about 1893 by crossing *E. philippiana* with *E. punctata*. Although not quite so hardy as the first of these, it is hardy enough to stand all but the severest of frosts, and even then will break up from the ground. It is distinct from other Escallonias in its slender arching branches, which bear the racemes on the upper side. The color of the flowers, too, is different from that of any other Escallonia except *E. edinensis*." (W. J. Bean, Trees and Shrubs Hardy in the British Isles, vol. 1, p. 528.)

Indigofera argentea L. (Fabaceae.) 41929. Seeds from Cairo, Egypt. Presented by Mr. Thomas W. Brown, Director, Horticultural Division, Ministry Agriculture, Giza Branch. "This species is the only one cultivated in Egypt." (Brown.) "The *Indigofera argentea* is a perennial plant, but in cultivation is either biennial or (generally) annual. It is of a woody nature, the dye being extracted from the leaves." (Foaden & Fletcher, Text-Book of Egyptian Agriculture, pp. 512-519.)

Indigofera trifoliata Torner. (Fabaceae.) 41909. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "A perennial having copiously branched trailing or suberect stems one to two feet long, soon glabrescent. Found in the Himalayas ascending to 4,000 feet in Kumaon, to Ceylon and Tenasserim." (Adapted from Hooker, Flora of British India, vol. 2, p. 96.)

Iseilema wightii (Nees) Anderss. (Poaceae.) 41914. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "A grass native to India occuring in low or swampy land. Stems one to three feet high. Duthie considers its fodder value probably equal to that of *Iseilema*

laxum, which is highly valued both as natural pasturage and cut for hay. Hooker says it is perennial but *I. laxum* is annual." (C. V. Piper.)

Juglans domingensis Dode. (Juglandaceae.) 41930. Seeds from Puerto Plata, Dominican Republic. Presented by Mr. Frank Anderson Henry, American Consul. "These were obtained through the kind assistance of Don Virgilio Batista of Jarabacoa, near which village the trees are found. The walnut does not appear to be very common in this part of the Dominican Republic, and is probably only obtained at an altitude of more than 1,000 feet above sea level. Jarabacoa has an elevation of about 1,800 feet." (Henry.) Probably only an island form of *J. nigra*, which varies sufficiently in the West Indies and South America to have given rise to a dozen or so-called species.

Juglans regia L. (Juglandaceae.) 42023. Cuttings of the Ontario walnut from Canada. Secured by Mr. C. A. Reed. "This stands on a lot at 251 Queenstown Street, St. Catherines, Canada. It is owned by Miss Alice Berger of that address. It is estimated to be 75 or more years of age. It has the reputation of being a heavy annual bearer. Its crop of 1914 is given by Miss Berger to have been about 200 pounds of nuts. The nuts are of medium size, thin-shelled and the kernels of good quality, In the opinion of Dr. Robert T. Morris of New York City, the flavor of these nuts is superior to that of any others of the sorts now being propagated in the East. The new growth on this tree was very short and irregular, making it difficult to obtain good wood for propagating." (Reed.)

Linum usitatissimum L. (Linaceae.) 41811. Flax seed from Lawnton, Queensland, Australia. Presented by Mr. Reginald W. Peters, Director, Experimental Grounds, at the request of Mr. Leslie Gordon Corrie, Brisbane, Australia. "This seed is the result of several years' hybridization and selection in England for length of unbranched fiber and absence of tillers at base." (Peters.)

Passiflora spp. (Passifloraceae.) 42032-42033, 42035. Seeds of passion fruits from Quito, Ecuador. Presented by Mr. Ludovic Söderström, through Mr. Charles S. Hartman, American Minister. *Passiflora mixta* L.f. 42032. "The Passiflora (*Tacsonia quitensis*) which was formerly much cultivated in the gardens at Quito but is now rarely seen. This plant is very prolific and in my garden I have sometimes counted over one hundred flowers and fruits at one time on the same plant. In the garden there are a couple of plants from 16 to 20 years old. The natives eat the fruit raw and also use it to flavor ice cream, etc. Quito 9,500 feet. Collected during the months of August to December." (Söder-

ström.) *Passiflora sp.* 42033. "A Passiflora much cultivated by the Indians in the valley of Zambiza, north-east of Quito. The fruit is smaller than No. 42032, is sweeter, and contains more seed. The flower is much attacked by bats and mice so that at Quito the plant seldom has fruits; it also requires a warmer climate, 17 to 18 degrees C. The Zambiza valley is about 1,000 to 1,500 feet lower than Quito and much warmer. Collected during the months of September to October." (Söderström.) *Passiflora ligularis* Juss. 42035. "The *Granadilla* or passion flower plant. This plant is cultivated in all the warm valleys in the interior of Ecuador. I have even found this plant growing wild in the woods at about 6,000 feet altitude. In the woods the squirrels always eat the fruit so very few seeds can be collected there." (Söderström.)

Pinus bungeana Zucc. (Pinaceae.) 41954. Seeds of the white-barked pine of North China. Collected by Mr. D. F. Higgins, Peking. "These seeds are from trees about 12 miles west of Peking." (Higgins.) Although the oldest specimens of this most remarkable pine have not yet shown their white barked character in America, they are situated in moist regions and it may require a drier climate to develop this attractive characteristic which makes this one of the most striking of landscape trees. (Fairchild.)

Piratinera alicastrum (Sw.) Baillon. (Moraceae.) 41880. Seeds from Merida, Yucatan, Mexico. Presented by Dr. L. Lavedan, New Orleans, Louisiana. "The leaves are used extensively for forage purposes in Yucatan, as already reported by Mr. G. N. Collins of this office a few years ago. Dr. Lavedan also considers that the seeds, which are produced in great abundance, might be utilized as a source of industrial starch, or perhaps distilled into alcohol. I have assured him that we would be interested to test the possibilities of growing this tree, at least in southern Florida." (O. F. Cook.)

Prunus serrulata Lindley. (Amygdalaceae.) 41817 to 41870. A collection of scions of 54 named varities of Japanese flowering cherries, presented by the Municipality of Tokyo to the American Government. These scions were cut from authentic trees growing in the famous Arakawa flowering cherry collection maintained by the Tokyo Municipality, which collection contains, in the opinion of such a noted authority on the subject as Mr. Funatzu, some of the loveliest forms of these remarkable trees. This collection duplicates one which was secured by Mr. E. H. Wilson of the Arnold Arboretum in January, 1915, (see S.P.I. Nos. 39743 to 39798 and 39820 to 39826), many numbers of which we were not successful in propagating. The arrangements to

secure these scions were made by Mr. Frank N. Meyer, Agricultural Explorer of this Office, during his stay in Japan in September, 1915, and Mr. H. Suzuki, Manager of the Yokohama Nursery Company, very kindly superintended the collection and shipment of them to this country. Thanks are due to Mr. Post Wheeler, Charge d'Affaires of the American Embassy in Tokyo, for conducting the arrangements with the Tokyo authorities. Mr. Wilson collected flowering specimens from the Arakawa collection and these are now in the herbarium of the Arnold Arboretum and will be of assistance in checking up the varietal nomenclature, which is much complicated. The hardiness of these flowering cherries in many parts of the United States, the fact that they flower at the most bewitching time of the year,—April and May—and are peculiarly attractive for small gardens and yards, and that most of them are introduced for the first time into this country, make the presentation of this valuable collection by the Mayor of Tokyo and his associates a matter of very unusual interest to Americans. (Fairchild.)

Sesban aculeatum (Schreber) Poir. (Fabaceae.) 41916. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "A tall, very rapid growing species reaching a height in one season of 12 to 20 feet in Florida and Mississippi, the stems woody and 2 to 4 inches in diameter. While this species is employed as a green manure crop in the tropics, its woody stems and great growth make it undesirable for agricultural use in America." (Piper.) Its masses of handsome yellow flowers however make it worthy of a trial in our summer flower borders where tall rank growing plants can be utilized. (Fairchild.)

Solanum quitoense Lamarck. (Solanaceae.) 42034. Seeds of *Naranjilla* from Quito, Ecuador. Presented by Mr. Ludovic Söderström, through Mr. Charles S. Hartman, American Minister. "The plant is about 6 to 8 feet high with hairy leaves and produces a fruit like a small orange; it is rather acid to taste. Each plant bears hundreds of flowers and fruits. The plant lasts 5 or 6 years after which a new plantation must be made. The best plantations are in the clearings at 5,000 to 6,000 feet altitude. The mean temperature is 17 to 19 degrees C. The fruit seems to be the principal article of food during certain seasons for the settlers in the woods. I have never found this plant flourish in the dry valleys in the interior but always in the clearings in the woods." (Söderström.)

Solanum sp. (Solanaceae.) 42026. Tubers from Tucumán, Argentina. Presented by Mr. E. F. Schultz, Horticulturist, Agricultural Experiment Station, through Mr. John S. Calvert, American Vice-Consul, Buenos Aires. "The Agricultur-

CHINESE WET-LAND GINGER.

A plantation of ginger (*Zinziber officinale*) on wet land, with taro along the edges of the beds and in empty spaces. The growers informed us that they realize from $16 to $18 (Mex.) per mau of land, which is roughly from $48 to $54 United States gold per acre. The work of ridging the beds is considerable, while during rainy weather the land is of a swampy nature and to labor in it may not appeal to farmers in western countries. Photograph (P13175FS) by Mr. Frank N. Meyer, near Paoki, Shensi, China, September 14, 1914.

A GROVE OF THE TAMOPAN PERSIMMON (*Diospyros kaki* L. f.), S. P. I. No. 16921.

W. P. Fulton standing beside one of the trees in his Tamopan persimmon grove at Brooksville, Fla. This is the largest grove of this new Chinese variety in America. It is on high hammock land in western Florida, and apparently the variety is admirably adapted to the conditions there. The trees have already borne fair crops of fruit of good quality. Photograph (P15924FS) by Mr. Peter Bisset, August 3, 1915.

al Department is carrying on certain breeding experiments with potatoes and these resistant wild strains may prove useful for this purpose. These tubers were gathered on very heavy clay soil, from a piece of land which is completely water-soaked during at least three months in a year and extremely dry for about seven or eight months in succession. The tubers possess, therefore, certain resistant properties which it may be found useful to impart to the cultivated varities in the States." (Schultz.)

Styrax hookeri C.B. Clarke. (Styracaceae.) 41815. Seeds from Darjeeling, India. Presented by Mr. G. H. Cave, Lloyd Botanic Gardens. "This is a small tree frequently met with in Sikkim and Bhutan at altitudes between 6,000 and 7,000 feet. The wood is white, close-grained, and moderately hard." (Watt's Dictionary of the Products of India.) Inasmuch as *Styrax japonica* ranks as one of the most beautiful of all flowering shrubs or small trees and is perfectly hardy in the Atlantic States and easy to grow from seed it is suggested that the getting together of all the species of this genus which bear attractive flowers and their hybridization might lead to practical results. (Fairchild.)

Thelepogon elegans Roth. (Poaceae.) 41918. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "A coarse perennial grass with stems one to three feet high, usually woody at base. When growing in rice fields it is difficult to distinguish until in flower. Cattle and horses eat the herbage when it is young and in some parts of Central Province the seeds are used as human food. Native to India and Africa." (C. V. Piper.)

Tricholaena rosea Nees. (Poaceae.) 41921. Seeds from Kirkee, India. Presented by Mr. William Burns, Economic Botanist. "When a single plant of Natal grass is allowed abundant room it will form a large tuft, sometimes 3 to 4 feet in diameter, the lower branches soon becoming decumbent, while the central stems are more nearly erect. The stems are slender, 3 to 4 feet high, and well covered with leaves, which are so nearly erect that few are lost in mowing the hay. The seeds are produced in large clusters of about the size and shape of a panicle of oats. In most cases the seed clusters are bright red or rosy crimson in color, and for that reason the grass has sometimes been called 'redtop'. It is, however, very different from the common northern grass known as redtop. The name 'Natal grass,' which indicates the country of which it is a native, is more appropriate and distinctive and is the one now in most common use. The plants are killed by a single plowing, and by keeping the land cultivated in other crops through the whole of a single season all the seeds in the

ground will have germinated and the young plants will be killed by the cultivation, so Natal grass can not become a troublesome weed." (C. V. Piper.)

Virola sp. (Myristicaceae.) 41945. Seeds from Brazil. Collected by Mr. H. M. Curran. "*Biquiba* or *Bicuhyba*. A common ornamental and timber tree of large size, with brown, medium hard wood, well known on the Brazilian market. The seed is said to yield an oil used in medicine, or for soap-making." (Curran.)

Vitis davidii Foex. (Vitaceae.) 41877. Seeds from Shanghai, China. Presented by Mrs. A. Anderson, through Mr. Frank N. Meyer. "A luxuriant, deciduous climber, the young shoots now downy, but covered with spiny, gland-tipped, somewhat hooked bristles, which give them a rough appearance. Leaves heart-shaped, slender-pointed, toothed; 4 to 10 inches long, $2\frac{1}{2}$ to 8 inches wide; shining dark green and smooth above, bluish or greyish green beneath, and downy only in the vein-axils, but more or less glandular-bristly, as is also the leaf-stalk, which is from half to nearly as long as the blade. Fruit not yet seen in this country, but said to be about 2/3 inch diameter, black, and of a pleasant flavor. Native of Central China; introduced by Wilson for Messrs. Veitch in 1900, but if, as I believe, the vine called *Spinovitis davidii* is the same, it has been cultivated in France and in England since about 1885. The plant cultivated at Kew under the latter name has leaves more deeply lobed and more coarsely toothed than Wilson's *V. armata*, and the spines are smaller; but in other respects it does not appear to differ. According to Carriére, the leaves are very variable in shape." (W. J. Bean, Trees and Shrubs Hardy in the British Isles, Vol. 2, p. 667, under *V. armata*.)

SCIENTIFIC STAFF OF THE OFFICE OF FOREIGN SEED AND PLANT INTRODUCTION OF THE BUREAU OF PLANT INDUSTRY.

Washington Staff.

David Fairchild, Agricultural Explorer in charge.
P. H. Dorsett, Plant Introducer in charge of Plant Introduction Field Stations.
Peter Bisset, Plant Introducer in charge of Foreign Plant Distribution.
B. T. Galloway, Plant Pathologist.
Frank N. Meyer and Wilson Popenoe, Agricultural Explorers.
H. C. Skeels, Botanical Assistant, in charge of Collections.
S. C. Stuntz, Botanical Assistant, in charge of Explorers' Notes, Foreign Correspondence and Publications.
R. A. Young, Botanical Assistant, in charge of Dasheen and Tung Oil Investigations.
G. P. Van Eseltine, Assistant, in charge of Label Catalogue, and Office Herbarium.
Nathon Menderson, Assistant, in charge of Chayote Investigations.
David A. Bisset, Assistant in Plant Introduction.

Staff of Field Stations.

R. L. Beagles, Farm Superintendent in charge of Chico, Calif., Plant Introduction Field Station.
H. Klopfer, Plant Propagator.
J. M. Rankin, Assistant Farm Superintendent in charge of Rockville, Md., (Yarrow) Plant Introduction Field Station.
Edward Goucher, Propagator.
Edward Simmonds, Gardener and Field Station Superintendent in charge of Miami, Fla., Plant Introduction Field Station.
J. E. Morrow, Assistant Superintendent, Brooksville, Fla., Plant Introduction Field Station.

Collaborators.

Mr. Aaron Aaronsohn, Haifa, Palestine.
Mr. Thomas W. Brown, Cairo Egypt.
Mr. H. M. Curran, Laurel, Md.
Mr. M. J. Dorsey, University Farm, St. Paul, Minn.
Dr. Gustav Eisen, California Acadmey of Sciences, San Francisco, Calif.
Mr. E. C. Green, Serviço do Algodao no Brazil, Rio de Janeiro, Brazil.
Mr. A. C. Hartless, Saharanpur, India.
Mr. E. J. Kraus, University of Chicago, Chicago, Ill.
Mr. Barbour Lathrop, Chicago, Ill.
Miss Eliza R. Scidmore, Yokohama, Japan.
Mr. Charles Simpson, Little River, Fla.
Dr. L. Trabut, Director, Service Botanique, Algiers, Algeria.
Mr. E. H. Wilson, Arnold Arboretum, Jamaica Plain, Mass.